

## 205.5 Radiopharmaceuticals (solution and gaseous forms)

These SRMs are intended for the calibration of radioactivity-measuring instruments. They are calibrated in terms of activity per gram of solution (except SRM 4415, which is calibrated in terms of activity). Each SRM is contained in a 5 mL flame-sealed glass ampoule and, except for SRM 4415, consists of the radionuclide dissolved in an aqueous solution (usually acidic).

These SRMs are produced in collaboration with the Nuclear Energy Institute and, because of the short half lives, are available only at specific times. For the current production schedule, contact the Radioactivity Group. Click here for more information.

Technical Contact: [brian.zimmerman@nist.gov](mailto:brian.zimmerman@nist.gov)

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	Radionuclide	Half Life (days)	Activity per gram (MBq • g <sup>-1</sup> )
4401H*	Iodine-131	8.0	1 GBq/g
4401L	Iodine-131	8	25
4404L*	Thallium-201	3.0	4
4407H*	Iodine-125	59.4	152.9
4407L*	Iodine-125	59.4	3.078
4410H*	Technetium-99m	0.3	1 000
4412H*	Molybdenum-99	65.95	22.59
4412L*	Molybdenum-99 / Technetium-99m	2.7	10
4415H*	Xenon-133	5.243	11.90 GBq/ g
4416L*	Gallium-67	3.3	4
4417L*	Indium-111	2.8	5
4425L*	Samarium-153	1.9	4
4426La	Strontium-89		
4427L*	Yttrium-90	64.0 hrs	5.115
4427H*	Yttrium-90	64.0 hrs	54.4

\*NIST requires license certification of purchaser before SRM can be shipped.